

Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Advanced Television Systems) MM Docket No. 87-268
and Their Impact Upon the)
Existing Television Broadcast)
Service)

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To: The Commission

SUPPLEMENTAL COMMENTS OF
NATIONAL BROADCASTING COMPANY, INC.

National Broadcasting Company, Inc. ("NBC") is a signatory to the joint Comments filed by the large group of broadcast television stations and networks ("Broadcasters' Comments") in response to the Sixth Further Notice of Proposed Rule Making ("Notice") in the above-referenced proceeding. NBC files these comments as a supplement to the positions set forth in the Broadcasters' Comments.

NBC fully endorses the principles contained in the Broadcasters' Comments and urges the Commission to adopt the Modified Table as proposed. NBC is committed to ensuring that advanced digital television (DTV) service becomes a reality and we recognize that this initial assignment table is an important step in achieving this goal. Assigning digital channels to the more than 1700 television stations, however, must be a dynamic process, as stated by the Broadcasters' Comments: "The depth of our knowledge of DTV operation justifies confidence in our allotment/assignment approach;

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the limits of that knowledge justify every effort to preserve flexibility.”¹ Thus, as DTV rolls out, and actual experience gives us more information as to DTV operations, it is critical that broadcasters maintain the ability to make channel and facility changes with relative ease. Furthermore, it is essential that broadcasters retain the ability to determine, through experience, the optimal spectrum band for DTV.

NBC has studied the proposed DTV assignments in the Modified Table for our owned and operated stations and in some instances, we have questions and may need additional information before we can determine whether the result is the optimal assignment. Accordingly, we strongly endorse the Broadcasters’ proposal to develop a joint industry and FCC process to consider and incorporate reasonable channel changes to the DTV table both before and after it is adopted.

A critical element to maintaining the flexibility to make necessary changes to the DTV table is to not arrive at a premature conclusion as to which parts of the spectrum may be best for DTV operation. In this regard, the Notice requests comment as to the validity of the FCC’s assessment that low band VHF channels (channels 2-6) are less suitable for television broadcasting because of high levels of noise present at those frequencies. As set forth below, NBC submits that the low band VHF channels are entirely suitable to carry the DTV signal.

A good source of data comparing NTSC and DTV facilities on low band VHF and UHF channels are the field test data from the ACATS field tests. These results are included in the Terrestrial Field Test Report of the Field Test Results of the Grand Alliance HDTV Transmission Subsystem (Section I). The Report supports the

¹ Broadcasters Comments at 6.

conclusion that globally DTV service availability or percent of locations with satisfactory reception would be greater on UHF channels. However, our analysis of the data in this Report supports the proposition that service performance on low band VHF channels is greatly improved by implementing DTV stations on these channels. Therefore, the feasibility of DTV operations on low band VHF channels should not be summarily dismissed.

Table 3 of the Report, shown below, demonstrates that service performance on the low band VHF channels can be improved by as much as 106 percent by implementing DTV operations on these channels, while VHF frequencies only offer a service improvement of 19.9 percent.

TABLE 3²

Relative Service Performance of NTSC and DTV*

SERVICE PERFORMANCE	NTSC		DTV	
	Ch. 6 %	Ch. 53 %	Ch. 6 %	Ch. 53 %
Percent of Locations with Satisfactory Reception	39.6	76.3	81.7	91.5
Percent of Locations without Satisfactory Reception	60.4	23.7	18.3	8.5

*NTSC peak power was 10 dB below maximum allowable power. The DTV average power level was 12 dB below NTSC peak power.

² See page 14 of Section I entitled Terrestrial Field Test Report of the Field Test Results of the Grand Alliance HDTV Transmission Subsystem.

Tables 4 through 7 of the Terrestrial Field Test Report also support the feasibility of using low band VHF channels for DTV. Tables 4 and 5 summarize the service availability data for grid and radial measurement data for channels 6 and 53 respectively. In every instance, the improvement in service availability between NTSC and DTV transmissions on low band VHF channel 6 was more than four times greater than that of UHF channel 53. Similarly, the "Relative Service Performance for NTSC and DTV versus Distance" tabulations of Tables 6 and 7 demonstrate an improvement in service availability at least four times greater for channel 6 over channel 53.

Of course, there are inherent characteristics of low band VHF frequencies which can affect DTV service on these channels. However, the advantages of longer range propagation with significantly lower transmitter power compensate for these deficiencies. Licensees in this band have been very successful in providing NTSC service on these channels. If the results of the test data are valid, then it would stand to reason that DTV service also would be successful. Additionally, since the FCC is implementing an allocation scheme based on service replication and not service equivalence, use of the low band VHF channels, where possible for existing licensees on those channels, would support this objective.

Broadcasters have long supported the proposition that stations should have the flexibility to vacate either the NTSC channel or the transition-period DTV channel after the transition, and this flexibility was codified in the Telecommunications Act of 1996 by requiring the return of one of either of the two channels.³ There is no basis for the

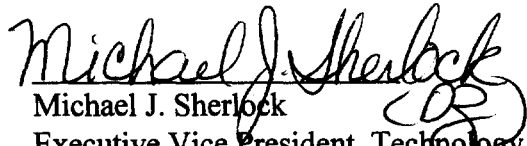
³ See 47 U.S. C. Section 336(c).

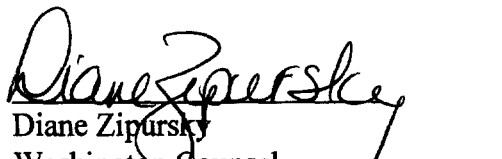
Commission to deny the 285 NTSC stations that currently operate on channels 2-6 the flexibility granted their competitors in the absence of tangible evidence that the lower VHF channels are unsuitable for DTV transmissions.

CONCLUSION

NBC urges the Commission to act expeditiously and adopt the assignment principles set forth by the Broadcasters' Comments and the Modified Table as proposed. The Commission should not, however, prejudge the suitability of any portion of the broadcast spectrum for DTV operation until there is valid, real-world evidence of which portions of the spectrum are optimal for DTV facilities.

Respectfully submitted,


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